



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,750	07/23/2001	Charles M. Patton	10007237-1	4995

7590 06/02/2006
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
----------	--------------

2137

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,750	PATTON ET AL.	
	Examiner	Art Unit	
	Zachary A. Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 21-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20060228</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 March 2006 has been entered.
2. By the above submission, Claims 1, 2, 4, 15, 21, 23, 24, 36, 37, and 44 have been amended. No claims have been added or canceled. Claims 1-15 and 21-46 are currently pending in the present application.

Response to Arguments

3. Applicant's arguments filed 10 March 2006 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 1-15 under 35 U.S.C. 101 as directed to non-statutory subject matter, Applicant argues that amended Claim 1 "includes nonfunctional descriptive material in combination with functional descriptive material that defines a functional interrelationship both as part of the stored data and as part of the computing

Art Unit: 2137

processes performed by the computer” (page 12 of the present response). However, Applicant does not clearly point out what the functional material is that defines a functional interrelationship nor what such relationship is. It appears to the Examiner that Claims 1 and 15 still only recite a file and a string embedded in that file, stored in a computer readable medium. The fact that the string is embedded in the file merely shows the arrangement of the pieces of data; that the claims have been amended to recite that the string is embedded more than once, or in a hidden manner as in amended Claim 1, does not define a functional interrelationship any more than the string embedded singly. An arrangement of data is considered non-functional descriptive material. As noted in the previous Office actions and as acknowledged by Applicant in the present response, nonfunctional descriptive material is not statutory by itself, even if tangibly embodied. See MPEP § 2106 IV.B.1 and IV.B.1(b).

Therefore, for the reasons detailed above, the Examiner maintains the rejection as set forth below.

4. Applicant's arguments with respect to the rejections of Claims 1-15 and 21-46 under 35 U.S.C. 103(a) have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

5. The information disclosure statement filed 28 February 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document;

Art Unit: 2137

each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

6. The Examiner acknowledges the replacement drawing sheet submitted with the response of 20 January 2006. The new drawings have been entered, and the objection to the drawings is withdrawn in light of the new drawings.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-15 are directed merely to an arrangement of data, although stored in a processor readable medium. Specifically, the independent claims recite a digital file and a digital string arranged as embedded within the file. An arrangement of data is non-functional descriptive material, which is not statutory subject matter even if stored in a computer-readable medium. See MPEP § 2106 IV.B.1 and IV.B.1(b).

Claim Rejections - 35 USC § 112

9. The rejection of Claims 44-46 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in light of the amendments to the claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-15, 21-35, and 37-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiser et al, US Patent 6385596, in view of Fujiwara, US Patent Application Publication 2001/0054081, and Stefik et al, US Patent 6233684.

In reference to Claim 1, Wiser discloses valued content in a computer readable-medium including a digital file having independent value to a provider (column 6, lines 48-52) and a digital string having a latent value to a purchaser embedded in a passport that is linked to the digital file (column 8, lines 53-56, where the string is personal information). However, although Wiser discloses that the string is embedded in the passport linked to the file (column 6, lines 44-46), Wiser does not explicitly disclose also embedding the personal information in the file itself.

Fujiwara discloses a system for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the content of Wiser to include the string also embedded directly in the digital file, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses embedding the string multiple times nor in a hidden manner. Stefik discloses a system for controlling use of digital works in which multiple watermarks may be embedded within a digital work, and both visible and invisible (i.e. hidden) watermarks may be used (column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the content of Wiser and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

In reference to Claims 2 and 3, Wiser, Fujiwara, and Stefik further disclose that the string is encrypted (Wiser, column 9, lines 19-20).

In reference to Claim 4, Wiser, Fujiwara, and Stefik further disclose the string being embedded in a human perceptible form (Wiser, column 9, lines 16-18; Fujiwara, page 5, paragraph 0049; Stefik, column 8, lines 51-55).

In reference to Claim 5, Wiser, Fujiwara, and Stefik further disclose a digital watermark (Wiser, column 7, lines 5-6 and 17-26; Stefik, column 8, lines 51-55).

In reference to Claims 6-9, Wiser, Fujiwara, and Stefik further disclose that the file can include text, images, video, and audio (Wiser, column 6, lines 59-60, for text and images; Wiser, column 6, lines 48-52; column 7, lines 4-9 for audio; Fujiwara, for example, page 6, paragraph 0057 for text, images, and audio; Stefik, column 5, lines 35-40, for text, images, audio, and video).

In reference to Claim 10, Wiser, Fujiwara, and Stefik further disclose that the latent value of the string resides in information that would place the purchaser at increased financial risk if known by another (Wiser, column 8, lines 53-56).

In reference to Claims 11 and 12, Wiser, Fujiwara, and Stefik further disclose a provider string that can be encrypted (see Wiser, column 4, lines 1-4; column 7, lines 27-46; see also column 10, line 60-column 11, line 7).

In reference to Claims 13 and 14, Wiser, Fujiwara, and Stefik further discloses recording the file on a portable medium (see Wiser, column 9, line 53-column 10, line 16).

In reference to Claim 15, Wiser discloses valued content in a computer readable-medium including a digital file having independent value to a provider (column 6, lines

Art Unit: 2137

48-52), a digital string having a latent value to a purchaser embedded in a passport that is linked to the digital file (column 8, lines 53-56), and an encrypted provider digital string (see column 4, lines 1-4; column 7, lines 27-46). However, although Wiser discloses that the string is embedded in the passport linked to the file (column 6, lines 44-46), Wiser does not explicitly disclose also embedding the personal information in the file itself.

Fujiwara discloses a system for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the content of Wiser to include the string also embedded directly in the digital file, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses embedding the string multiple times. Stefik discloses a system for controlling use of digital works in which multiple watermarks may be embedded within a digital work (column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the content of Wiser and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are

Art Unit: 2137

somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

In reference to Claim 21, Wiser discloses a method including acquiring a digital string, embedding the string in a passport that is linked to the digital file (column 8, lines 53-56), and conveying the file to a purchaser (column 9, lines 54-56). However, although Wiser discloses that the string is embedded in the passport linked to the file (column 6, lines 44-46), Wiser does not explicitly disclose also embedding the personal information in the file itself.

Fujiwara discloses a method for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the method of Wiser to include embedding the string directly in the digital file, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses embedding the string multiple times nor in a hidden manner. Stefik discloses a method for controlling use of digital works in which multiple watermarks may be embedded within a digital work, and both visible and invisible (i.e. hidden) watermarks may be used (column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill

Art Unit: 2137

in the art at the time the invention was made to modify the content of Wiser and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

In reference to Claims 22-24, Wiser, Fujiwara, and Stefik further disclose encrypting the digital string (Wiser, column 9, lines 19-20).

In reference to Claim 25, Wiser, Fujiwara, and Stefik further disclose generating a digital watermark (Wiser, column 7, lines 5-6 and 17-26; Stefik, column 10, lines 20-22; column 8, lines 51-55).

In reference to Claims 26 and 27, Wiser, Fujiwara, and Stefik further disclose a provider string that can be encrypted (see Wiser, column 4, lines 1-4; column 7, lines 27-46; see also column 10, line 60-column 11, line 7).

In reference to Claim 28, Wiser, Fujiwara, and Stefik further disclose recording the file on a portable medium (Wiser, column 9, line 53-column 10, line 16).

In reference to Claims 29 and 30, Wiser, Fujiwara, and Stefik further disclose transmitting the content via a network (Wiser, column 5, lines 43-46).

In reference to Claims 31-33, Wiser, Fujiwara, and Stefik further discloses that the string can be embedded in images, audio, or video (Wiser, column 6, lines 59-60, for images; Wiser, column 6, lines 48-52; column 7, lines 4-9 for audio; Fujiwara, for example, page 6, paragraph 0057 for images, and audio; Stefik, column 5, lines 35-40, for images, audio, and video).

In reference to Claim 34, Wiser, Fujiwara, and Stefik further disclose that the latent value of the string resides in information that would place the purchaser at increased financial risk if known by another (Wiser, column 8, lines 53-56).

In reference to Claim 35, Wiser, Fujiwara, and Stefik further disclose determining the content of the string (Wiser, column 9, lines 11-24).

In reference to Claim 37, Wiser discloses a system including a processor (see, for example, Figure 1, Client System 126; see also column 9, lines 40-52), a storage device (for example, see column 10, lines 50-55), an interface, and content including a digital file (column 6, lines 48-52) and a string embedded in a passport that is linked to the digital file (column 8, lines 53-56). However, although Wiser discloses that the string is embedded in the passport linked to the file (column 6, lines 44-46), Wiser does not explicitly disclose also embedding the personal information in the file itself.

Fujiwara discloses a system for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the system of Wiser to include the string also embedded directly in the digital file, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses

Art Unit: 2137

embedding the string multiple times nor in a hidden manner. Stefik discloses a system for controlling use of digital works in which multiple watermarks may be embedded within a digital work, and both visible and invisible (i.e. hidden) watermarks may be used (column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the content of Wiser and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

In reference to Claim 38, Wiser, Fujiwara, and Stefik further disclose an output device (Wiser, column 10, lines 1-16; Stefik, column 6, lines 18-22).

In reference to Claims 39 and 40, Wiser, Fujiwara, and Stefik further disclose a connection to a network (Wiser, column 5, lines 43-46).

In reference to Claim 41, Wiser, Fujiwara, and Stefik further disclose determining the content of the string (Wiser, column 9, lines 11-24).

In reference to Claims 42 and 43, Wiser, Fujiwara, and Stefik further disclose a point of sale machine and a network connection (Wiser, see column 11, lines 8-13).

In reference to Claim 44, Wiser discloses a system including a processor (column 9, lines 40-52), an interface that requests a digital string (column 8, lines 53-56), and a storage device (for example, column 10, lines 50-55). Wiser further discloses embedding the string in a passport that is linked to a digital file (column 8,

Art Unit: 2137

lines 53-56). However, although Wiser discloses that the string is embedded in the passport linked to the file (column 6, lines 44-46), Wiser does not explicitly disclose also embedding the personal information in the file itself.

Fujiwara discloses a system for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the system of Wiser to embed the string directly in the digital file, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses embedding the string multiple times nor in a hidden manner. Stefik discloses a method for controlling use of digital works in which multiple watermarks may be embedded within a digital work, and both visible and invisible (i.e. hidden) watermarks may be used (column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the content of Wiser and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

In reference to Claims 45 and 46, Wiser, Fujiwara, and Stefik further disclose a network (Wiser, column 5, lines 43-46).

12. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dwork et al, US Patent 6038316, in view of Fujiwara and Stefik.

In reference to Claim 36, Dwork discloses acquiring a digital string (column 7, lines 40-47), embedding the string in an encryption key (column 7, lines 14-19), encrypting a digital file (column 7, lines 34-37), and conveying the encrypted file to a purchaser (column 7, lines 38-40). However, Dwork does not explicitly disclose also embedding the digital string in the digital file that is encrypted.

Fujiwara discloses a method for content delivery in which personal data is embedded in a delivered digital file (page 4, paragraph 0047; page 5, paragraphs 0049 and 0054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the method of Dwork to include embedding the string directly in the digital file before encryption, in order to effectively prevent illegal copying (see Fujiwara, page 5, paragraph 0049).

Although Wiser and Fujiwara disclose watermarks (Wiser, column 7, lines 5-6 and 17-26) and a string embedded in a digital file (Fujiwara, page 4, paragraph 0047; page 5, paragraphs 0049 and 0054), neither Wiser nor Fujiwara explicitly discloses embedding the string multiple times nor in a hidden manner. Stefik discloses a method for controlling use of digital works in which multiple watermarks may be embedded within a digital work, and both visible and invisible (i.e. hidden) watermarks may be used

Art Unit: 2137

(column 8, lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the content of Dwork and Fujiwara to include the string embedded two or more times, at least once in a hidden manner, in order to increase robustness; that is, even if the visible string(s) is/are somehow removed, the invisible one(s) would remain and still allow control of the digital rights (see Stefik, column 8, lines 55-56).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Moskowitz et al, US Patent 5822432, discloses a system in which multiple watermarks are encoded in a digital work, where the watermarks are hidden.
- b. Vynne et al, US Patent 5960081, discloses a system where a digital signature is hidden in a video sequence by embedding the signature repeatedly.
- c. Sharma et al, US Patent 6385329, discloses a system where a watermark embedder hides watermarks that are repeated throughout an image.
- d. Carr et al, US Patent 6389151, discloses a system where hidden digital watermarks are included in multiple elements of a document.
- e. Venkatesan et al, US Patent 6801999, discloses a system where a large number of watermarks are embedded, and can be hidden.

Art Unit: 2137

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZAD
zad


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER